

**REMARKS**

Claims 1-18 remain pending in this application.

*Power of Attorney*

A Revocation of Power of Attorney, Substitute Power of Attorney, and Change in Correspondence Address, and a Certificate under 37 CFR § 3.73(b) Showing Chain of Title are attached hereto. **It is respectfully requested that the U.S. Patent and Trademark Office enter this power of attorney and update the correspondence address of record, to ensure that future correspondence is mailed to the undersigned.**

*Rejection under 35 USC 103*

Claims 1-10 stand rejected under 35 USC 103 as being unpatentable over Mitsui et al., U.S. Patent 5,734,457. This rejection is respectfully traversed.

Claims 11-18 stand rejected under 35 USC 103 as being unpatentable over Mitsui et al. in view of Kishimoto et al., U.S. Patent 6,281,960, and further in view of Tombling et al., U.S. Patent 6,373,549. This rejection is respectfully traversed.

When applying 35 U.S.C. §103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be **considered as a whole**;
- (B) The references must be considered as a whole and must **suggest the desirability** and thus the obviousness of making the combination;
- (C) The references must be **viewed without the benefit of impermissible hindsight vision afforded by the claimed invention** and

(D) **Reasonable expectation of success** is the standard with which obviousness is determined.

*Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). (MPEP §2141)

If proposed modification would render the prior art invention being modified **unsatisfactory for its intended purpose**, then there is **no suggestion or motivation** to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (MPEP 2143)

Independent claim 1 of the present application sets forth an LCD module with backlight includes an upper glass substrate and a lower glass substrate. A plurality of first color layers are formed upon the upper glass substrate and a plurality of first black matrices are formed in gaps between said first color layers. An upper protective layer is covered on the first color layers and the first black matrices. An upper conductive layer is covered on the upper protective layer. A plurality of thin film transistors are formed on the lower glass substrate. A plurality of second color layers are formed upon the thin film transistors and a plurality of second black matrices are formed in gaps between the second color layers, wherein a color of each of the second color layers is identical to a color of each corresponding first color layer. A lower protective layer is covered on the second color layers and the second black matrices. A lower conductive layer is covered on the lower protective layer. A liquid crystal material layer is positioned between the lower conductive layer and the upper conductive layer.

Independent claim 11 includes the features of claim 1, but further includes the feature “compensatory layers formed upon the thin film transistors.”

Claims 1 and 11 **both** define an LCD module including a plurality of color layers, a plurality of first black matrices, a protective layer and a conductive layer formed on an upper glass substrate and a lower glass substrate.

As stated in the Office Action, “Mitsui **fails** to disclose a plurality of second **black matrices** and a lower **protective layer**. Kishimoto do disclose a plurality of color layers (6a/6b/6c) with a plurality of black matrices (BM) therebetween and a lower protective layer (72) being formed over a lower substrate (2).” The Examiner suggests combining Mitsui and Kishimoto to employ second black matrices and a lower protective layer in order to meet the scope of independent claims 1 and 11 of the present invention (see page 3, lines 5-8 and paragraph 5 of the Office Action).

However, Mitsui **fails** to suggest the **desirability** to be **modified as** or **combined with** Kishimoto in the manner mentioned above. In particular, Mitsui discloses an upper substrate (13a') comprising a plurality of first color layers (R/G/B) (14') with a plurality of first **black matrices (14a')**, a **protective layer (22')** and an upper conductive layer (23') thereon. Mitsui also discloses a lower substrate (13b') comprising a plurality of thin film transistors (TFT) (25'), a plurality of second color layers (R/G/B) and a lower conductive layer formed thereon (see FIG. 4 and column 11, lines 5-59). Obviously, the inventors of Mitsui knew that black matrices (14a') can be arranged between color layers (R/G/B). Nevertheless, black matrices are not arranged between color layers (R/G/B) (37') on the lower substrate (13b'), but thin film transistors (TFT) (25') are utilized **on black matrices' behalf** between color layers (R/G/B) on the lower substrate (13b'). Thus, Mitsui has suggested a **tendency not to** utilize black matrices on the lower substrate (13b'); which is **far from** suggesting the **desirability** to utilize the same.

Insofar as **the protective layer (22')** is concerned, Kishimoto discloses an overcoat layer 72 and that "the overcoat layer 72 has a thickness of about 200 nm to about 500 nm. The overcoat layer 72 having a thickness less than 200 nm does not effectively smooth the edge of the polymer, causing disconnection of the transparent electrodes" (see FIG. 4 and column 9, lines 51-55). That is, the overcoat layer 72 (larger than about 200 nm) provides an electrical connection for the transparent electrodes. Nevertheless, Mitsui has disclosed via contact holes (36) for electrical connection with the transparent electrodes (24') (see FIG. 4 and column 9, lines 55-56). Another **overcoat layer** for electrical connection with the transparent electrodes (24') would therefore be expected to be **unnecessary**.

Accordingly, Mitsui **fails** to suggest the **desirability** of employing black matrices (BM) and the overcoat layer (72) of Kishimoto.

Assuming, *in arguendo*, that the Examiner's combination of Mitsui and Kishimoto is proper, the references would still produce a **poor** combination, **unsatisfactory** for the intended purpose of Mitsui. In particular, Mitsui discloses that the problem of the conventional LCD device is its **low transmittance**. The transmittance is mainly affected by **the aperture ratio of a TFT array** and the transmittance of the liquid crystal layer, the two polarizing plates and the color filter layer. A **transmittance** obtained by calculating with typical values of above-mentioned main factors results in **6.5 to 8%**. Due to the low efficiency of light, it is difficult to conduct a color display without a backlight, which **consumes** power in large amounts. Achieving a **low** power consumption LCD device with a **good transmittance** is **impaired** (see FIG. 4 and column 2, line 55 – column 3, line 20). Therefore, the intended purpose of Mitsui is to **raise** an LCD device's **transmittance** as high as possible to achieve **low** power consumption

thereof. Nevertheless, any black matrix material constitutes opaque areas to reduce **the aperture ratio**. In case black matrices (BM) of Kishimoto are filled in gaps between the color filter layers (37) of Mitsui, black matrices (BM) would constitute larger opaque areas than a TFT array (25') could constitute in FIG. 4 of Mitsui. The aperture ratio of a TFT array (25') (now equal to the aperture ratio of black matrices on the low glass substrate of Mitsui), which is a main factor of an LCD device's **transmittance**, would be expected to decrease. Supposing the overcoat layer (72) of Kishimoto is covered on the transparent electrodes (24') of Mitsui, an LCD device's transmittance would be **further** reduced. Either the overcoat layer (72) or black matrices (BM) of Kishimoto added on the lower glass substrate (13b') of Mitsui would reduce an LCD device's **transmittance**, which is **unsatisfactory** for the intended purpose of Mitsui. Therefore, there is **no suggestion or motivation** to make the proposed modification.

Since Mitsui and Kishimoto cannot be combined in the manner suggested, it is respectfully submitted that the prior art utilized by the Examiner fails to teach or suggest all features of independent claims 1 and 11 of the present application, as well as their dependent claims. Reconsideration and withdrawal of the 35 USC 103 rejection are respectfully requested.

### Conclusion

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Because the additional prior art cited by the Examiner has been included merely to show the state of the prior art and has not been utilized to reject the claims, no further comments concerning this document are considered necessary at this time.

Application No. 10/805,128  
Amendment dated December 20, 2005  
Reply to Office Action of September 20, 2005

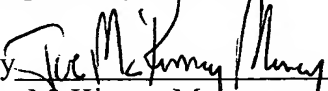
Docket No.: 2519-0222PUS1

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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